The Builder.

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IT is much to be desired that the construction of our ordinary dwelling-houses should be improved. The system at present pursued in row after row, and square after square, is defective in the extreme, and contradicts very strangely our assumed advances in scientific knowledge. Use begets indifference: whatever has answered the purpose once will do so again, it is thought, and so men go on year after year in the same defective course, without once thinking of its inefficiency or making any efforts at improvement, which in many cases might be effected without any immediate increase of expense, and in all with a positive saving ultimately. The assistance of architects is seldom sought in the construction of small houses; their attention, therefore, is hardly called to the subject, and the result, unfortunately, is that even in cases where they are employed, the same beaten track is pursued; additional effect, if any thing, is alone aimed at, and the employer sometimes finds that his houses have cost him more money, but are little improved in stability, arrangement, or convenience, by the interference of the man of taste. It is a study that would amply repay serious consideration, and loudly demands it; and that not merely as regards sound construction, but as to the mode of heating, ventilating, draining, and lighting houses, to which little or no attention is ever paid. Let us look at one of the "eight roomed houses," of which hundreds are in progress towards completion in the suburbs of the metropolis at this moment. A shell of 9 inch brickwork forms it, divided in the centre by a few upright pieces of timber reaching from floor to floor, and framed into a head and cills—in some there is no cill, the head of the lower partition forming the cill of that above it, and the omission is a gain. At the top of the building a gutter plate, supporting the rafters of the roof on either side, passes from the front wall to the back in the middle of the house, and rests in the centre of its length on the head of the upper partition. The timber in the partitions, which is usually saturated with water, necessarily shrinks in drying, and reaching in lengths, as it does, from the bottom of the house to the top, of course allows the roof and floors to sag very considerably; and the mischief is further exhibited by numerous cracks in the plaster and paper in every room. In the front wall the openings are usually so placed as to bring the upper masses over the lower voids, and are always covered by an arch of such defective construction as to be literally useless. When, in addition to these and numerous other errors, we see the mode in which the brickwork is often executed—mortar-joints, or rather mud-joints, three-fourths of an inch thick, upright joints one over another, and scarcely any headers running through the wall—it becomes surprising that so few accidents are heard of. It must not, however, be supposed, that none occur; walls are constantly falling, houses not unfrequently, but very few of these mishaps become known to the public. We have examined two or three fallen 9-inch walls within this last week, and have found them consist of two half-brick leaves, which had separated, bulged, and fallen; and we do not hesitate to assert, that there is a tendency to this same result in the greater number of walls now raised by speculative builders. Nothing, indeed, can be worse than the greater part of the brickwork raised in and round London, and we cannot too strongly condemn it or too loudly call for an alteration. The use of Flemish bond has greatly aided to make bad workmanship general, and it is much to be desired that the prejudice which exists against the appearance of English bond could be overcome, as it is certain that by this mode the greatest strength is attained. A nine-inch wall properly executed in English bond, with only just enough mortar (of stone-lime and Thames sand) to connect the bricks, is stronger, and more effectually keeps out the weather and keeps down the damp, than a wall double that thickness of brickwork such as is too generally found in ordinary buildings. An improvement in the construction of houses concerns us all: we shall lose no opportunity to revert to the defects of the present system, and to suggest the means of remedying them.

MR. COCKERELL'S FIFTH LECTURE ON ARCHITECTURE.

MR. COCKERELL commenced his lecture on Thursday, the 6th inst. (at the Royal Academy), by saying he should treat of the distinctions made by the ancients between civil and sacred architecture, and which, unfortunately, were not regarded by the moderns; and afterwards speak of various buildings used by the Romans—mural decorations, arrangement of ceilings, &c. The method he had adopted in this course, namely reviewing ancient buildings, and more especially Greco-Roman remains, was not for the purpose of displaying erudition, but from conviction of the practical advantages that would result to the students from pursuing it. The last half-century had greatly increased our materials for such an examination, and there was no excuse if we neglected it. To make these lectures merely antiquarian, would have been waste of time; his object was to make them practical. In examining the works of the ancients, we should strive to graft their ideas on our own. The architects of the sixteenth century confessed the superiority of ancient works over those of the middle ages. Bramante practically studied Vitruvius, so did Palladio and others, and laid down principles which have been received, and raised works that are models for imitation. The professor mentioned Colonna as being imbued with love for ancient art, and spoke of his imaginative work on the arts, which took you into the solitude of ancient cities, and raised beautiful visions of ancient skill. If reading Robinson Crusoe had made many sailors, Colonna's work should make many architects. Mr. Wightwick's "Palace of Architecture" was formed on this model, but he had omitted to enlist the feelings.

Genius afterwards became fettered by the rules which had been laid down, and the result was a revolt in the time of Bernini. He again referred to Canina's work, as affording materials for study. The more completely ancient works were investigated, the greater would the reputation of Vitruvius grow. With Canina for a guide they could not fail to be improved.

The recent devotion to Greek art had done good, but had been exclusive. Practically, architecture had suffered since Vitruvius had lost his credit. The want of distinction between civil and sacred architecture, to which he had referred, was a crying sin in modern practice, as also was the manner in which interiors were treated. Vitruvius expressly stated that the entablature should be diminished in interiors, but we used the same mass as if it were in the air, which always had the effect of reducing it. The architects of the Revival had observed these distinctions, but not by rule. He then examined the Palace of the Quai d'Orsay, at Paris, and some of the works of Schinkel, in whose ability he professed to have great faith. Going on then to treat of civil buildings, he described the Theatre of Pompey, 1,000 feet long, and 532 feet wide, and a few of the porticoes at Rome. The magnificence of some of the theatres was almost incredible: they were used as a sort of Parliament House. In the centre of the scene in theatres of late date an apse was formed, probably to aid the voice. He described the magnificent velarium or awning put up by Nero.* Sir Christopher Wren had taken a hint from this for his theatre at Oxford. The velarium at one of the theatres was 550 feet by 450 feet. It required great skill, and was managed by sailors. Its principle was that of the suspension-bridge. The professor remarked that when he restored the ball and cross at St. Paul's Cathedral they were obliged to employ sailors in the operations.

Returning to the subject of proportions for interiors, he ridiculed the practice of applying details from the exterior of the Parthenon in a drawing-room, or executing in joinery the doorway from the Temple of Erectheus for a small chamber. It was illogical to employ the same proportions for two different purposes. When speaking of large rooms, he mentioned the Bank parlour as a very admirable apartment. By pictorial art we might make rooms seem much higher than they really were. The appearance of extent given by using a number of small parts is shewn in Gothic works. The Adams', considered the side of a room as much as the front of a house. It was desirable that it should be represented on paper to a large scale, so as to induce the introduction of greater number of parts to fill the space. When speaking of courts of justice the professor remarked that modern courts of justice were very badly arranged, especially as regarded ventilation.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

AN ordinary meeting of the institute was held on Monday evening, the 10th inst., Mr. J. B. Papworth, vice-president, in the chair, when Mr. John Burley Waring and Mr. Nathaniel Thomas Randall were elected associates. Herr Gruner acknowledged the honour of his election as corresponding member, and invited all members of the institute to visit him when they came to Rome.

Mr. George Hawkins read a description of King's Scholars' Pond Sewer, particularly with reference to some recent constructions at Pimlico, which will be found at length in another part of the journal. The paper led to an interesting conversation. Mr. Poynter remarked on the badness of the drainage in Paris. As late as the year 1832, when the cholera was talked about, there was no sewer in the Rue Castiglione or in many other equally important streets, although there was every facility for discharging them into the river. Mr. Fowler said, that Berlin was even now quite destitute of a system of sewers. Being built on a sandy flat, little or no fall was to be obtained: deep gutters were dug in the streets, and into these the soil was allowed to run and to remain there for some time. At Hamburg since the great fire, they have adopted a most complete system, under the direction of Mr. Lindley. A plan for the whole was laid down in the first instance, and would be gradually carried out. It was such an extensive work, that thousands visited it, as one of the lions of the place. In order to carry the main sewer across the river, it was made to dip about 1 feet; the accumulation of deposit was prevented by periodically allowing a flush of water to pass through it.

Mr. Rode Hawkins then submitted some drawings of a restoration of one of the edifices at Xanthus, from sketches taken on the spot, accompanied by an explanation of the sculptures and architecture. A description of the building will be found in our report of Mr. Cockerell's fourth lecture.

Relative to cleaning the sculptured portions of it, now in the British Museum, Mr. C. H. Smith said he had observed a labourer at work upon them in a very injurious manner, and hoped greater care would be taken. It was understood that Sir R. Westmacott had been deputed to superintend the operation, and we may, therefore, rest quite satisfied that it will be properly performed.

* See THE BUILDER, p. 19, ante.

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